

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:
 COLLER IP MANAGEMENT LIMITED
 Attn. Ratcliffe, Susan M.
 Fugro house
 Hithercroft Road
 Wallingford
 Oxfordshire OX10 9RB
 GRANDE BRETAGNE

05 JAN 2009

NOTIFICATION OF TRANSMITTAL OF
 THE INTERNATIONAL SEARCH REPORT AND
 THE WRITTEN OPINION OF THE INTERNATIONAL
 SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 16077 MdH	Date of mailing <i>(day/month/year)</i> 18/12/2008
International application No. PCT/GB2008/050894	FOR FURTHER ACTION See paragraphs 1 and 4 below International filing date <i>(day/month/year)</i> 03/10/2008
Applicant ACCENTUS PLC	

1. The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the International Search Report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Fascimile No.: (41-22) 338.82.70

For more detailed instructions, see the notes on the accompanying sheet.

2. The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

- the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until **30 months** from the priority date (in some Offices even later); otherwise, the applicant must, within **20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the International Searching Authority  European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Lisa Marchetto
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NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the *PCT Applicant's Guide*, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report and the written opinion of the International Searching Authority, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only (see *PCT Applicant's Guide*, Volume I/A, Annexes B1 and B2).

The attention of the applicant is drawn to the fact that amendments to the claims under Article 19 are not allowed where the International Searching Authority has declared, under Article 17(2), that no international search report would be established (see *PCT Applicant's Guide*, Volume I/A, paragraph 296).

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the International phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for International publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for International preliminary examination has been/is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]: "Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]: "Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]: "Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or "Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]: "Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments and any accompanying statement, under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the time of filing the amendments (and any statement) with the International Bureau, also file with the International Preliminary Examining Authority a copy of such amendments (and of any statement) and, where required, a translation of such amendments for the procedure before that Authority (see Rules 55.3(a) and 62.2, first sentence). For further information, see the Notes to the demand form (PCT/IPEA/401).

If a demand for international preliminary examination is made, the written opinion of the International Searching Authority will, except in certain cases where the International Preliminary Examining Authority did not act as International Searching Authority and where it has notified the International Bureau under Rule 66.1bis(b), be considered to be a written opinion of the International Preliminary Examining Authority. If a demand is made, the applicant may submit to the International Preliminary Examining Authority a reply to the written opinion together, where appropriate, with amendments before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later (Rule 43bis.1(c)).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see the *PCT Applicant's Guide*, Volume II.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 16077 MdH	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/GB2008/050894	International filing date (day/month/year) 03/10/2008	(Earliest) Priority Date (day/month/year) 03/10/2007
Applicant ACCENTUS PLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of:

- the international application in the language in which it was filed
- a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))
- b. This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6 bis(a)).
- c. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.
- 2. Certain claims were found unsearchable (See Box No. II)
- 3. Unity of invention is lacking (see Box No III)
- 4. With regard to the title,

- the text is approved as submitted by the applicant
- the text has been established by this Authority to read as follows:

METHOD OF MANUFACTURING METAL WITH BIOCIDAL PROPERTIES

5. With regard to the abstract,

- the text is approved as submitted by the applicant
- the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1

- as suggested by the applicant
- as selected by this Authority, because the applicant failed to suggest a figure
- as selected by this Authority, because this figure better characterizes the invention
- b. none of the figures is to be published with the abstract

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2008/050894

A. CLASSIFICATION OF SUBJECT MATTER
INV. C25D11/26 A61L27/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
C25D A61F A61L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2005/087982 A (ACCENTUS PLC [GB]; PICKFORD MARTIN EDWARD LEE [GB]; LEWIS DAVID RICHARD) 22 September 2005 (2005-09-22) page 3, line 21 – page 4, line 16 page 4, line 34 – page 7, line 2 abstract	1-25
A	-----	26
X	WO 03/094774 A (PLASMA COATINGS LTD [GB]; ANDERSON DUNCAN M [GB]) 20 November 2003 (2003-11-20) claims 1-6,10-18	23-25
Y	-----	1-22
	-/-	

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

9 December 2008

Date of mailing of the international search report

18/12/2008

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Haering, Christian

INTERNATIONAL SEARCH REPORT

International application No PCT/GB2008/050894

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2006/104644 A (SDGI HOLDINGS INC [US]; ISTEPHANOUS NAIM S [US]; ROULEAU JEFFREY P [US] 5 October 2006 (2006-10-05) abstract claims 1-11 figures 1-4	23-25
Y	US 2007/187253 A1 (GILBERT JEREMY [US] ET AL) 16 August 2007 (2007-08-16) figures 1,3 paragraphs [0003], [0012], [0021], [0024] - [0029] claims 1-10,16-18	1-22
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2008/050894

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 2005087982	A	22-09-2005		AT 372401 T AU 2005221862 A1 CA 2557029 A1 DE 602005002353 T2 EP 1725701 A1 ES 2290888 T3 JP 2007529621 T US 2007181221 A1		15-09-2007 22-09-2005 22-09-2005 29-05-2008 29-11-2006 16-02-2008 25-10-2007 09-08-2007
WO 03094774	A	20-11-2003		AU 2003224334 A1 EP 1509160 A1 JP 2005525165 T US 2005221259 A1		11-11-2003 02-03-2005 25-08-2005 06-10-2005
WO 2006104644	A	05-10-2006		CA 2600622 A1 CN 101166549 A EP 1863544 A2 JP 2008534126 T US 2006229715 A1		05-10-2006 23-04-2008 12-12-2007 28-08-2008 12-10-2006
US 2007187253	A1	16-08-2007		NONE		

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/GB2008/050894

International filing date (day/month/year)
03.10.2008

Priority date (day/month/year)
03.10.2007

International Patent Classification (IPC) or both national classification and IPC
INV. C25D11/26 A61L27/16

Applicant
ACCENTUS PLC

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

Haering, Christian

Telephone No. +49 89 2399-8010



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2008/050894

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 the international application in the language in which it was filed
 a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. **type of material:**
 a sequence listing
 table(s) related to the sequence listing
 - b. **format of material:**
 on paper
 in electronic form
 - c. **time of filing/furnishing:**
 contained in the international application as filed.
 filed together with the international application in electronic form.
 furnished subsequently to this Authority for the purposes of search.
4. In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or
industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes:	Claims	<u>26</u>
	No:	Claims	<u>1-25</u>
Inventive step (IS)	Yes:	Claims	<u>26</u>
	No:	Claims	<u>1-25</u>
Industrial applicability (IA)	Yes:	Claims	<u>1-26</u>
	No:	Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/GB2008/050894

Re Item VIII

(Certain observations on the international application)

1. Claim 1 lacks clarity under Article 6 PCT for the following reasons:
 - 1.1. Claim 1 has to be restricted to a method treating a refractory metal [...] which includes silver as biocidal metal. Indeed, the description is only based on titanium objects comprising silver as biocidal material;
 - many metals can be passivated, aluminum is the principal element which is commonly passivated. However, this metal has not been taken into consideration at all. Thus, the search had to be limited, to involve only the refractory metals as claimed in claim 10, or cited on p. 8, I.4 to 6, i.e. Ti, Ta, Nb, Zr. As a consequence the subject-matter of claim 1 has to be restricted to the treating method of a metal object selected from "claim 10";
 - moreover, no other biocidal "material" than silver has been cited in the description; it has only been mentioned that silver can be replaced by or combined with another biocidal metal (see p. 7, I. 33 to p. 8, I. 2), without giving any concrete example. Actually, the word "material" is too broad. The description is based on a biocidal **metal**, which is silver, not an organic product or material, like hydroxyapatite. Thus, the subject-matter of claim 9 has to be incorporated into claim 1.
 - 1.2. there are three possible alternatives for step (c). However, the aim in the present application is **to transform the oxide layer obtained by passivation [steps (a) and (b)] into a hydrous metal oxide on the surface of the metal object**. This is **done by reduction, i.e. by applying a negative voltage**, while in contact with an electrolyte solution (**see abstract**);
 - when the metal object to be coated, the substrate, is titanium, then this object is contacted to the anodising electrolyte and a negative voltage is applied.
 - When the substrate is not titanium, then this object is contacted to an electrolyte solution comprising peroxytitanyl and a negative voltage is applied.
 - However, no example is mentioned about a chemical reduction. This seems to extend beyond the scope of the invention.Moreover, failure to delete the alternative chemical reduction could lead to a lack of unity.
 - 1.3. "contacting the anodised metal object with a solution containing a biocidal material into the surface layer" is in fact a further step, and should be noted (e).
 - 1.4. As a final remark concerning claim 1, it has to be clear in claim 1, what is obtained at which step.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

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2. The method of claim 23 is not allowed according to Article 6 PCT and should be deleted (the claim shall define the matter for which the protection is sought).
3. (According to the Guidelines CIII, 4.12 of the EPC, a product is not rendered novel merely by the fact that it is produced by means of a new process (T 150/82, OJ 7/1984, 309). Nevertheless, again according to the Guidelines CIII, 4.12, more precisely according to Art. 64(2) EPC, if the subject-matter of a European patent is a process, the protection conferred by the patent extends to the products directly obtained by such process.)
As a consequence, claim 24 should be deleted. Moreover, the same applies for claims 25 and 26, or those have to be rewritten in terms of "use" claims.
4. Claim 6 is unclear since it is written in terms of a result to be achieved.
5. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 at least is not mentioned in the description, nor is this document identified therein.
6. Claim 5 is redundant.

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. *Disclosures:*

- D1: WO 2005/087982 A (ACCENTUS PLC [GB]; PICKFORD MARTIN EDWARD LEE [GB]; LEWIS DAVID RICHARD) 22 September 2005 (2005-09-22)
D2: WO 03/094774 A (PLASMA COATINGS LTD [GB]; ANDERSON DUNCAN M [GB]) 20 November 2003 (2003-11-20)
D3: WO 2006/104644 A (SDGI HOLDINGS INC [US]; ISTEPHANOUS NAIM S [US]; ROULEAU JEFFREY P [US]) 5 October 2006 (2006-10-05)
D4: US 2007/187253 A1 (GILBERT JEREMY [US] ET AL) 16 August 2007 (2007-08-16)

- 1.1. Document D1 discloses a method of treating a titanium implant comprising (see

**WRITTEN OPINION OF THE
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AUTHORITY (SEPARATE SHEET)**

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relevant passages cited in the search report):

- passivating the titanium surface,
 - continuing the passivation to produce pits,
 - reducing the surface to produce hydrous titanium oxide,
 - separating the object from the bath and applying silver from another solution.
- 1.2. Documents D2 and D3 disclose both a similar method than that of claim 1, with the difference that no step c is mentioned in those documents.
- 1.3. On the other hand, D3 discloses a method with the steps (a) to (d), but without incorporation of a biocidal material into the surface layer (as for step (e), mentioned in 1.3. of Re item VIII).

2. *Novelty:*

- 2.1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT, regarding the disclosure of D1.
- 2.2. The subject-matter of claims 23 to 25 are not novel either, with respect to the disclosures of D1 to D2, see item VIII, 3.
- 2.3. A jewellery produced by the method of claim 1 is not known in the art.

3. *Inventive step:*

- 3.1. Document D4, which is considered to represent the most relevant state of the art, discloses a metal treating method from which the subject-matter of claim 1 differs in that a biocidal material, silver, is incorporated into biomedical surfaces with nanoscale topography.
- 3.2. The problem to be solved by the present invention may therefore be regarded as improving the biocompatibility of medical implants or jewellery by adding a biocidal material into the treated surface.
- 3.3. The advantage obtained by incorporating a biocidal material like silver into the surface layer is known from D2 or D3 for example. Thus, the skilled person aiming at manufacturing a medical implant is directed to consider D2 or D3.
- 3.4. The other way around, considering D2 (or D3) as closest prior art, the subject-matter of claim 1 differs in that the treating method allows an anodised and so porous refractory metal to get a surface capable of better adsorbing a biocidal material.

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AUTHORITY (SEPARATE SHEET)**

International application No.

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This is achieved in that the anodised surface of the refractory metal is submitted to an electrochemical reduction, by inverting the voltage, i.e. by applying a negative voltage. This is disclosed in D4.

- 3.5. As a consequence, the present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 does not involve an inventive step in the sense of Article 33(3) PCT.
- 3.6. Dependent claims 2 to 22 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step.
- 3.7. There is no indication in the art to apply the method of claim 1 for producing jewellery.

The applicant is requested to file new claims which take account of the above comments. In order to facilitate the examination of the conformity of the amended application with the requirements of Article 34(2)(b) PCT, the applicant is requested to clearly identify the amendments carried out, irrespective of whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based.

If the applicant regards it as appropriate these indications could be submitted in handwritten form on a copy of the relevant parts of the application as filed.

Possible steps after receipt of the international search report (ISR) and written opinion of the International Searching Authority (WO-ISA)

General information	For all international applications filed on or after 01/01/2004 the competent ISA will establish an ISR. It is accompanied by the WO-ISA. Unlike the former written opinion of the IPEA (Rule 66.2 PCT), the WO-ISA is not meant to be responded to, but to be taken into consideration for further procedural steps. This document explains about the possibilities.
Amending claims under Art. 19 PCT	Within 2 months after the date of mailing of the ISR and the WO-ISA the applicant may file amended claims under Art. 19 PCT directly with the International Bureau of WIPO. The PCT reform of 2004 did not change this procedure. For further information please see Rule 46 PCT as well as form PCT/ISA/220 and the corresponding Notes to form PCT/ISA/220.
Filing a demand for international preliminary examination	<p>In principle, the WO-ISA will be considered as the written opinion of the IPEA. This should, in many cases, make it unnecessary to file a demand for international preliminary examination. If the applicant nevertheless wishes to file a demand this must be done before expiry of 3 months after the date of mailing of the ISR/ WO-ISA or 22 months after priority date, whichever expires later (Rule 54bis PCT). Amendments under Art. 34 PCT can be filed with the IPEA as before, normally at the same time as filing the demand (Rule 66.1 (b) PCT).</p> <p>If a demand for international preliminary examination is filed and no comments/amendments have been received the WO-ISA will be transformed by the IPEA into an IPRP (International Preliminary Report on Patentability) which would merely reflect the content of the WO-ISA. The demand can still be withdrawn (Art. 37 PCT).</p>
Filing informal comments	After receipt of the ISR/WO-ISA the applicant may file informal comments on the WO-ISA directly with the International Bureau of WIPO. These will be communicated to the designated Offices together with the IPRP (International Preliminary Report on Patentability) at 30 months from the priority date. Please also refer to the next box.
End of the international phase	At the end of the international phase the International Bureau of WIPO will transform the WO-ISA or, if a demand was filed, the written opinion of the IPEA into the IPRP, which will then be transmitted together with possible informal comments to the designated Offices. The IPRP replaces the former IPER (international preliminary examination report).
Relevant PCT Rules and more information	Rule 43 PCT, Rule 43bis PCT, Rule 44 PCT, Rule 44bis PCT, PCT Newsletter 12/2003, OJ 11/2003, OJ 12/2003